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Development and feasibility of a nurse administered strategy on depression in community-dwelling patients with a chronic physical disease

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Abstract

This contribution reports on the acceptability and feasibility to nurses and patients of an intervention to ameliorate minor depression among patients with chronic physical diseases. Elderly patients with chronic obstructive pulmonary disease (COPD) and type II Diabetes Mellitus were recruited from 10 general practices. All eligible patients were screened. Twenty-nine patients with minor depression gave their informed consent to participate in this feasibility study. The nurses spent an average of 70 min per visit. Our intervention appeared feasible and acceptable to patients and nurses. For the nurses, it provided an additional tool for a well-known problem. The majority of the patients regarded the intervention as worthwhile and effective. Patients had difficulties in understanding the link between physical complaints and symptoms of depression. The intervention has been further improved on the basis of our experiences, and is now ready to be tested in an effectiveness study.

Keywords: Depression; Chronic disease; Physical disease; CBT; Nurse; Intervention

1. Introduction

Depression is both a prevalent and disabling disorder among the elderly. Life-time prevalence of minor depression is estimated at 12% [1]. The prevalence of depression among elderly persons with chronic physical diseases is an average of 1.5–2 times higher than in the general elderly population [2]. The negative impact of depression on mortality and physical and social disability in particular has been extensively documented [3]. Depression coexisting with physical disease has been shown to increase functional disability and services utilization and to reduce the effects of rehabilitation in older patients with stroke, Parkinson's disease, heart disease, pulmonary disease and bone fractures [4]. The relationship between depression and disability among elderly persons seems to be reciprocal: disability itself predicts the onset and persistence of depression, while depression is a risk factor for the progression of disability, eventually causing a downward spiral [5]. A plausible explanation is that depressed patients are more prone to non-adherence to medical regimens [6]. Other authors have found evidence of a patho-physiological mechanism: depressed persons initially free of cardiac disease appeared to have an increased risk of fatal cardiac events [7], although this was not confirmed by others [8]. Current guidelines for the diagnosis, treatment and follow-up of chronic disease are predominantly focused on detection and control of the chronic disease, neglecting the emotional aspects of being chronically ill and coping with the chronic disease [9]. At the same time, clinical trials have demonstrated that depression is a treatable disorder in any age category [10], including medically ill elderly persons [11]. Cognitive behavioral therapy (CBT) has been found to be effective in patients with mild or moderate depression in outpatient settings, even more so than anti-depressants [12]. A systematic review demonstrated the effectiveness of CBT versus no treatment for both depression and other mental health and quality of life outcomes [13].

We conclude that there is a strong case for the diagnosis and treatment of symptoms of depression in patients with

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chronic physical disease. On the other hand, this would add significantly to a general practitioner's workload. An extended role for community nurses might fill this gap. Nurses could decrease the GP's workload and at the same time considerably improve the quality of care among depressed patients with a chronic disease. There is accumulating evidence that primary care staff, nurses in particular, can be trained in cost-effective psychological interventions on depression [14]. Patients can be expected to have a favorable opinion of the role of nurses in primary care, especially if such nurses are already involved in a care program for chronically ill elderly patients. For this reason, a minimal intervention strategy for depressed patients with a chronic physical disease was developed, to be administered by nurses and applied to patients with COPD and type II Diabetes Mellitus. This contribution reports on the evaluation of a training program for nurses and the acceptability and feasibility of the strategy for patients and nurses.

2. Development of the intervention

The intervention strategy was derived from three sources, each closely related to the principles of CBT. *Firstly*, the principles of self-management outlined in the Chronic Disease Self Management Program (CDSMP) by Lorig and Gonzalez [15] were applied. The CDSMP is based on social learning theory and uses an incremental goal setting and contracting strategy to assist in ensuring that people are successful in their efforts to change. Judgments of efficacy expectancies determine how much effort and persistence people are prepared to expend to overcome obstacles. Those who judge themselves inefficacious in coping with the demands imposed by their chronic disease (e.g. carrying out specific activities, adherence to the medical regimen, etc.) may dwell upon their perceived deficiencies and see difficulties as more formidable than they really are. The CDSMP aims to improve self-efficacy expectations and thereby stimulate healthy behavior and quality of life in groups of approximately 12 patients with various chronic conditions. As our intervention is to be applied in the context of regular contacts between patient and nurse, no exchange of experiences between patients can be included. This disadvantage may be counterbalanced by the advantage of the simultaneous attention to medical and cognitive emotional aspects of living with a chronic disease by the same nurse (continuity of care). CDMSP includes weekly action planning and feedback, modeling behaviors and problem-solving, communication skills (with family, friends, health-care providers), dealing with the emotions of chronic illness (anger, depression), and individual decision-making. As no group sessions were used, the interaction between the nurse and the patients (and spouses of patients who may be involved as well) is to be used to emphasize efficacy-enhancing strategies such as skills mastery (accomplished through weekly contracting to engage in specific behaviors and feedback) and modeling (accomplished by the nurse and by introducing group problem solving during the sessions). The perspectives of and input by patients, therefore, remain crucial.

Secondly, some aspects of the reattribution model developed by Goldberg et al. [16] were applied. Unlike the approach used by Lorig, which is generic and comprehensive, Goldberg's model has been successfully applied to a specific group of somatizing patients. The model was developed for application during regular consultation hours, which suits our strategy. During the consultation, nurses and patients go through three stages: (1) exploration of the patients' problems, enabling patients to feel understood; (2) broadening the agenda from physical complaints to psycho-social issues; and (3) showing patients the link between their distress and their physical complaints. Blankenstein et al introduced a diary to facilitate progress in the three stages and especially the transition from phase 2 to 3, on the basis of patients' daily experiences [17]. Patients are asked to keep a diary including notes on: (1) severity of symptoms; (2) behaviors; and (3) associated thoughts, worries and feelings. The applicability of this model in regular patient–caregiver encounters, its conciseness and the comparability of the complaints (between patients with depressive symptoms and somatizing patients) make it attractive for our intervention strategy.

A *third* element of our intervention is based on the work of the project team "Interventie Studie Eerste Lijn" (INSTEL, Intervention Study in Primary Care) at the Departments of Social Psychiatry and General Practice of the University of Groningen (INSTEL). INSTEL was developed for the diagnosis and treatment of depression, anxiety, somatization, sleeping disorders and chronic complaints in primary care patients without physical disease [18]. It has made an important contribution to the improvement of GPs' competence regarding the diagnosis and treatment of these disorders, both in general and with respect to depression in particular. This training program has been made suitable for application by nurses for the present minimal intervention. Like the other approaches, INSTEL also aims to interrupt the downward spiral by changing elements of the vicious circle of emotions, cognitions and behaviors. It offers worthwhile additional didactic and educational elements for a training program for nurses to complement the work by Lorig and Gonzalez [15] and Goldberg et al. [16].

We integrated the useful elements of these three approaches into a strategy for the care of depressed patients with a chronic disease, to be administered by nurses. The intervention comprises elements of performance attainment, verbal persuasion, assessments of physiological states facilitated by diary keeping and contracting aimed at tailored behavior change by means of problem solving and reattribution. Specific attention to the emotional well-being of patients with a chronic disease means that a strategy focusing on their specific problems is imperative. These problems are usually mostly related to changes in personal and social functioning as a consequence of gradual or intermittent deterioration of health. Part of the problem is that patients

tend to attribute their complaints and symptoms only to the chronic disease itself, which is reinforced by the primary focus of regular medical standard programs on the control of the disease by caregivers. This process is assumed to prevent these patients from adaptively coping with the changed circumstances resulting from the progression of the chronic disease, and to lead to disempowerment.

Based on the strong evidence of the effectiveness of CBT, nurses collaboratively explore the patients' cognitions about the origins of symptoms and complaints and their relation with limitations, disabilities and following behaviors. The exploration is to be supported by a diary kept by the patients. Patients are asked to record symptoms, complaints, thoughts, worries, related feelings and behaviors. The findings from the diary are to be used to link the patient's mood to his or her consequent behavior and to the course of the chronic disease. A distinction is to be made between complaints related to the disease itself and those related to the emotional and behavioral consequences of the disease. In this phase, the self-management approach is to be introduced [19]. Patients and nurses explore self- management possibilities, again in a collaborative fashion, thereby tailoring the self-management tasks to the specific needs of each individual patient.

3. The nurse training program

The training was carried out by two experienced trainers, one of them a general practitioner (KvdM) the other a psychologist (WB). The local Home Care Agency kept a list of free-lance nurses, and all nurses on the list were sent a letter with information on the training and the objective of our feasibility study. The first six nurses who subsequently showed an interest in the training were invited to attend the program. Two of them were very experienced and were involved in a disease management program for patients with type II Diabetes Mellitus and COPD, while two others worked at a primary care health center but had no specific task in the care for patients with chronic disease. The remaining two nurses were preparing to return to practice after an 8-year break, as their children had now entered school. The composition of the group was intended to be rather heterogeneous with regard to competence and experience, enabling us to explore the applicability of the program among nurses with various capabilities. The nurses applied not only for the training itself, but also for the subsequent feasibility study.

The training course involved three 8 h sessions in 1 month, with 2-week intervals, in September 2001. During the course, the above-mentioned stages of the intervention were trained step by step. In the first training session, the trainees were familiarized with the exploration of feelings, the use of the diary and how to introduce it to patients, and the theory of reattribution. Each of the components was practiced and if necessary demonstrated by the trainers. In the afternoon, a simulation patient (recruited from the skills lab of the Medical Faculty at Maastricht University) was used to play a range of patient roles, and all nurses were given the opportunity to put into practice what they had learned during the morning session. They were also instructed to apply the various skills to a patient with type II Diabetes Mellitus or COPD in their care immediately after the session.

Their experiences with these patients were discussed at the second session and solutions practiced by means of role-playing. Apart from this, the second day was devoted to problem solving, behavior change and contracting. Again, nurses were asked to apply the knowledge and competence thus acquired during the 2 weeks following the second session. The final training session paid attention to experiences with patients during the preceding weeks and possible solutions were offered to any problems that occurred during contacts with patients. In addition, role-playing was used to practice the termination of the intervention with the patient and possible referral to the general practitioner in case of deterioration of the symptoms of depression or physical complaints. Finally, the nurses were provided with information about the various types of depression and the possible consequences for the intervention.

In summary, the following program was offered to the trainees:

(1) *First session*: Introduction to the course and the feasibility study; explanation of CBT and reattribution theory, acquisition of communication skills by means of role-playing with the help of a simulation patient; practicing the use of the diary and how to introduce the diary to the patient; practicing how to show patients the link between complaints–mood and behavior–cognitions.
(2) *Second session*: Exchanging trainees' experiences with real patients; practicing; how to motivate a patient; practicing problem solving and contracting.
(3) *Third session*: Exchanging experiences with real patients; drawing up a list of difficult situations and practicing possible solutions; practicing the consecutive steps of the intervention, including how to conclude the intervention.

4. Methods

4.1. Evaluation of the training program

Every training session was followed by a discussion of the content of the program and the feasibility of applying the intervention to a patient with one of the chronic diseases selected. The nurses also completed an evaluation form with questions about the comprehensibility and practicability of the various components of the training program. At the end of the training course, the trainees were asked to evaluate the comprehensibility of the intervention with all its successive steps. They were asked about the practicability of the termination of the intervention and of

explaining to patients the role of depression in daily life. All questions were scored on a Likert type scale, with 1 indicating highly incomprehensible–applicable and 5 highly comprehensible–applicable.

The competence of the trainees was judged by the two trainers at the end of the third session, in terms of exploring feelings, explaining the use of the diary to patients, showing patients the link between physical complaints, behaviors and symptoms of depression, and detecting deterioration of depression. All aspects were scored on Likert type scales, 1 indicating incompetent and 5 competent.

4.2. Evaluation of the intervention strategy

Both patients and nurses completed an evaluation form after every visit by the nurse.

Patients were asked how they felt they had been treated by the nurse and whether they were generally satisfied with the encounter. They were also asked how they perceived the importance of the various components of the intervention. Finally, they were asked to give an overall assessment of the total intervention.

The *nurses* were asked to inform us to what extent the various components had been implemented. After every encounter, they also completed a checklist that served as a reminder of the various components of the intervention. On this list they noted if a topic had been dealt with, what agreements had been made and, if it had not been dealt with, what the problem was. They also recorded how many visits were necessary to clarify the various steps of the intervention. This allowed us to determine whether the key elements of the intervention had been put on the agenda and which barriers the nurses had been confronted with. Finally, the nurses were also asked to give a general assessment of the intervention as a whole in their own words.

4.3. Patient selection

Patients were recruited from 10 general practices. Each practice provided us with a list of all patients with type II Diabetes Mellitus and COPD. To this overall list, the following inclusion and exclusion criteria were applied, to be checked by the GP.

Inclusion: Age >60 years, community dwelling.

Exclusion: Engaged in other studies, known diagnosis of major depression, under treatment for depression or symptoms of depression, psychiatric co-morbidity (like bipolar depression, schizophrenia or psychosis), not able to speak or write in Dutch, recent loss of key person.

This led to a selection of 291 patients with COPD and type II Diabetes Mellitus, who were then screened to see if they qualified for the intervention.

Screening: As none of these patients were known to suffer from symptoms of depression, patients with such symptoms had to be detected. First, a Dutch version of the PHQ-9 (PHQ; Patient Health Questionnaire) was sent to all the listed patients ($n = 291$). This nine-items questionnaire can be easily administered by patients themselves. The nine-items correspond exactly to the Dutch guidelines for the detection of depression as issued by the Dutch College of General Practitioners. The instrument has demonstrated its validity for screening purposes [20]. One hundred and fifty completed (60%) questionnaires were received. On the basis of the PHQ-9 score, patients could be divided into two groups: no depression ($n = 81$) and possible mild or major depression ($n = 69$). All patients with a diagnosis of possible minor or major depression were contacted by phone and asked to give informed consent for an interview by a research nurse, intended to confirm the diagnosis of depression. Twelve patients refused further participation (no interest, anxiety about interviews, no visit at home) and nine patients returned their questionnaire after the deadline for inclusion in the study, leaving a total of 48 patients who gave their informed consent. The research nurse, who had been trained by a psychiatrist of the Department of Psychiatry of the Medical Faculty of the University of Maastricht to confirm a DSM-IV based diagnosis of depression, administered the MINI (MINI: mini-international neuropsychiatric interview) and the Ham-D scale (Ham-D: hamilton depression) to all the patients who had given informed consent [21,22]. This procedure has amply proven its diagnostic validity and has been used in many studies on depression to confirm a diagnosis of major or minor depression (MINI) as well as to asses severity (Ham-D). Our procedure led to 38 of the patients being confirmed with a diagnosis of depression, including seven patients with major and 31 with minor depression. The latter were eligible for inclusion in our study. In the end, four of these refused to participate in the intervention program (three of them because they were increasingly able to cope with the depression themselves and one patient who was only interested in the final diagnosis). Ultimately, therefore, 27 patients were contacted and visited by the trained nurses for the intervention.

5. Results

5.1. Evaluation of the training program

The *nurses* were generally very positive about the comprehensibility of the intervention and their competence to carry it out. Almost all items were scored as 4 or 5 (range, 1–5; see Table 1). The comprehensibility of “explanation of the diary”, “behavior change” and “contracts” was given a score of 3 (neutral) in four cases. Feasibility scores of 3 were given for “contracting” and “problem solving” in two cases. In most of these cases, the neutral score was given in the evaluation of the first session, indicating that some problems were encountered with contracting, although most nurses also gave positive scores for this aspect. The discussions with the nurses at the end of every training session provided useful suggestions for improvement of the

Table 1
Mean scores for comprehensibility and applicability of the different tasks according to the nurses ($n = 6$)

	Comprehensible	Applicable
Exploration	4.3	4.3
Explaining the diary	4.8	4.7
Explaining the different parts of the diary	4.3	4.5
Making the "link"	4.7	4.2
Making agreements	4.0	4.2
Reattribution	4.2	4.2
Behavior change		
Understanding	4.5	4.3
Readiness to change	4.5	4.3
Capability	4.5	4.3
Performing	4.5	4.5
Maintainance	4.5	4.3
Motivating patients	4.7	4.3
Problem solving	4.5	4.3
Contracting	4.7	4.5
Summarizing intervention step by step	5.0	
Final visit	4.8	
Introduction in depression	4.8	

training. Nurses said they sometimes had difficulty completing the intervention within the scheduled time, especially when patients were distracted or long-winded, while the opposite occurred when patients were very introverted. Some patients refused to keep the diary.

On the whole, the nurses' opinion about the intervention was highly favorable. They felt it added a new and very relevant dimension to their work. Whereas, in their daily routine they were used to actively intervening and solving patients' problems, they now learned to motivate patients to improve their self-management by providing a structured approach to detecting behaviors that cause their distress to persist and to collaborate with them in looking for better scenarios.

The *trainers* were generally less positive about the nurses' performance. Their judgements were fairly comparable. Only on one occasion did the assessment by the two trainers differ by two points on the scale. The highest scores were assigned to the two most experienced nurses (Table 2). According to the trainers, nurses had the greatest problems with "exploration" and "showing patients the link between physical complaints, behaviors and symptoms of depression" (Table 3). As these competencies are essential for the success of the intervention, these components will have to be given more attention in the training program.

Table 2
Mean scores per nurse for both trainers

Nurse	Number of patients	Mean scores for all parts		Total
		Trainer A	Trainer B	
1	4	3.4	3.2	3.2
2	4	3.5	3	3
3	8	5	5	5
4	5	4.4	5	5
5	5	3.4	3	3
6	1	3.6	2.8	2.8
Total	27	3.9	3.7	3.7

Table 3
Mean scores for all nurses per learning task for both trainers separately

Learning task	Mean for all nurses		Total
	Trainer A	Trainer B	
Exploration	3.8	3.3	3.6
Explanation diary	4.2	3.8	4.0
Discussion parts diary	3.8	3.8	3.8
Making the link	3.5	3.5	3.5
Detection of deterioration	3.8	3.8	3.8
Total	3.8	3.6	3.7

5.2. Evaluation of the intervention

Of the 27 *patients*, 16 were female. Fifteen patients had an established diagnosis of type II Diabetes Mellitus, while seven patients had a diagnosis of COPD and seven suffered from both of these chronic conditions. Mean age was 69.6 (range, 62–88). Patients received an average of 4.4 visits (range, 2–6). The average duration of the visits was 70 min (range, 60–93). After the intervention, 14 patients reported significant improvement of the symptoms of depression.

Twelve patients did not keep a diary at all, indicating that they had difficulties expressing their thoughts and emotions. The remaining patients kept the diary for an average of 9 days (range, 1–20). Nurses reported that most of these patients were very curious to know how the information in the diary was going to be used at the next follow-up visit.

Patients appeared to increasingly appreciate the visits. The first visit was evaluated favorably by 11 patients, while 24 patients were positive after the intervention had been completed. The large majority judged the intervention to be worthwhile and effective ($n = 21$). Three patients reported that they would probably not participate in a study like this again, two because they were convinced they would be able to manage any future problems themselves and the third because of problems talking about feelings. This patient withdrew from the intervention after two sessions. All patients except this one said they would recommend other patients to take part in the intervention. The majority of the patients thought the nurse had understood their problems very well ($n = 21$). Patients were convinced of the importance of the various components of the intervention (complaints, emotions, thoughts, sickness, social contacts and loneliness). Only the diary was a real problem for the patients. They not only regarded it as not very important, but they also found it difficult to complete.

The *nurses* were generally positive about their contacts with the patients. Only one nurse reported on a case in which the contacts with the patient had proved very difficult. This concerned a patient who avoided talking about feelings. In four cases, the intervention started with (minor)

problems, but by the time the intervention was completed, the relationship between patient and nurse had improved considerably. The nurses were generally also content with their own performance. Learning points included handling a patient's dominant spouse and structuring the contacts with long-winded patients. For logistical reasons, the interval between the visits was only 1 week. The nurses recommended an interval of 2 or even 3 weeks, enabling patients to internalize the content of the visits and to apply what they had learned in everyday life. They stressed the importance of greater flexibility in the number of visits. In their opinion, some patients needed more visits, while others needed careful monitoring (for example, by phone) in order to avoid deterioration of their depression. Some patients did well with fewer than five sessions. A real problem was experienced in those cases where no link could be made between the depression and the consequences of the chronic disease for daily life. Finally, the nurses' opinions about their own performance were listed. They all believed they had improved substantially in terms of their capability to "explore", "discuss emotions" and "facilitate reattributions" of patients' cognitions.

5.3. Implementation of the intervention

Some components of the intervention were not fully implemented. This applies especially to some components that constitute the core of CBT, namely the diary and the reattribution (see Table 4). As was mentioned, some patients did not complete the diary ($n = 6$), which made it impossible to analyze what happened between two sessions. Furthermore, problem solving and reattribution were not applied in seven patients. Three of these patients found a solution for themselves in between the sessions. Lack of implementation of certain components of the intervention seems to have occurred mostly in patients who did not complete their diary or did so inadequately. This aspect was influenced by the nurses' performance. Two nurses, the most experienced ones, accurately implemented all components of the intervention in all their patients, while two others missed four and five parts, respectively, and the remaining two nurses missed 10 and 11 parts, respectively.

Table 4
Different elements of the intervention according to the number of times a given part was dealt with

	Frequency				
	0	1	2	3	>3
Introduction					
Introduction intervention	2	20	4		
Introduction diary	0	20	6		
Completion of the diary	0	16	8	2	
Agreements about completion diary	0	19	6	1	
Exploration					
Complaints	0	3	9	5	9
Behaviors	0	3	10	7	6
Cognitions/feelings/moods	0	4	9	8	5
Diary					
Problems with completion	0	15	9	2	
Clarification of different parts	7	9	9	1	
Summarizing	4	14	7	1	
Reattribution/problem solving					
Inquiring about complaints		6	6	9	5
Making the link between cognitions, behaviors, mood	3	3	8	7	5
Explanation of the link	5	7	6	6	2
Agreement about next step	3	8	9	3	3
Problem solving	2	6	6	6	6
Discussion of change after last visit	4	4	9	3	6
Inquiring further questions of the patient	6	3	5	8	4
Follow-up appointment					
Making the next appointment	3	3	5	4	11

6. Conclusions

On the whole, our minimal intervention strategy appears to be feasible and acceptable to both patients and nurses. The nurses' opinions were very favorable. They only mentioned problems with contracting and adhering to the schedule. The trainers also perceived some problems with "exploration" and "showing patients the link between physical complaints and symptoms of depression", especially among the less experienced nurses. The majority of patients showed significant improvement after the intervention. All but one patient would recommend other patients to participate in a program like this. The nurses were generally convinced that they would be able to manage their patients' emotional problems in future. In some cases, the intervention could not be implemented properly. Some patients had difficulty keeping diaries and expressing their feelings. This could be explained by the lack of experience of some nurses, as the two most experienced nurses performed best.

6.1. Discussion

The nurses felt that our strategy provided them with a new instrument to deal with a problem that they were previously unable to handle, although they had been well aware of emotional problems in the contacts with many of their patients. It is clear, however, that the level of experience of the nurses involved should be taken into account in setting up training courses or even in selecting them. Greater effort should be invested in trainees who do not perform well on the most crucial elements of the intervention, namely exploration and showing patients the link between their emotional status and their complaints and daily functioning. During the training, nurses were taught to collaboratively and retrospectively analyze the connection between complaints–moods on the one hand and behaviors–cognitions of events that had occurred during the days preceding the visit on the other. Since some nurses had had little opportunity to put the strategy they had learned into practice, more opportunities should be provided

to practice what they learn in nurse–patient contacts during the training period. They should be trained to deal with unexpected events, for example, when patients distract the nurses from completing the successive steps of the intervention. This is particularly true in terms of explaining the use of the diary to the patients and their actually using it.

Patients were satisfied about being taken seriously in terms of their distress and the consequences of their emotional status for their daily functioning. An important consistent problem appeared to be to get them to express emotions connected with the disease and to complete their diaries. As this is the core of the intervention, it is imperative to solve this problem. Greater attention should be given to this problem not only during the training but also during the home visits. One option to solve this problem could be to reconstruct what should have been entered into the diary during the following session.

The more experienced nurses performed best in this respect, and these were obviously the nurses with greater opportunity to practice in the contacts with their regular patients during the training period.

It may be questioned whether a more or less fixed number of five visits is in agreement with the range of patients' needs, as some patients are evidently less able to monitor their feelings, cognitions and related behaviors. If patients are not able to report their feelings by means of the diary, more attention should be paid to the expression of feelings before trying to show patients the link between physical complaints and symptoms of depression on the basis of verbal reports of what happened to them. A longer interval of, for example, 2 weeks between two visits could offer the patients more opportunities to complete their diaries.

As this intervention strategy is intended to be integrated in the regular care provided by these nurses (since patients with type II Diabetes Mellitus and COPD are regularly seen by these nurses as part of a disease management program) the required flexibility can be tested in practice. Since nurses will be involved in the care of patients with other chronic diseases as well, it is promising that both patients with type II Diabetes Mellitus and those with COPD were positive about nurses continuing to pay attention to mood disturbances among their patients, confirming the intended generic character of our strategy. We are, therefore, convinced that the strategy is useful and helpful for a wide range of patients with various chronic diseases, whose highly prevalent emotional problems related to their disease are often neglected or untreated by their caregivers. As only the strategy's feasibility and acceptability was assessed, its effectiveness, however, remains to be demonstrated.

6.2. Implications for nursing practice

Taking into account the mood disturbances of patients with chronic physical diseases is an important addition to the existing regular care. These disturbances are very common and are not adequately addressed in regular care. Neglecting, or paying insufficient attention to, the emotional status of chronically ill patients prevents them from adequately coping with the disease, as is reflected by their resistance against adhering to medical regimens and against adequate participation in social life. This in turn bodes ill for the course of the disease itself. As community nurses and specialized nurses become more and more involved in the treatment and follow-up of patients with chronic physical diseases, it is imperative that their training equips them with the skills to assist patients in this respect. In this role, nurses should be able to build prolonged relationships, based on trust, with their patients, which seems a prerequisite for interventions to improve patients' skills to cope with their disease. Our feasibility study showed that paying attention to these problems satisfies a great need among these patients. This makes a strong case for integrating nurses' medical–technical skills with psycho-social skills. After all, patients' medical and psycho-social needs are two sides of the same coin. Our study proves that non-specialized nurses, assuming they have regular nurse–patient contacts, are very well able to fill this important gap, with a minimal investment of time. They, thus, add an extremely important element to regular chronic disease management programs, which means that disease management evolves into integrated care management.

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